茶樹育種個體選拔芽葉農藝性狀及化學指標之研究

陳坤龍　李淑美

台灣省茶業改良場

摘　要

本研究利用目前主要栽培品種希望建立一套扦插苗及實生苗幼木期鮮葉主要生化成分成茶滋味之關係，並調查其芽葉農藝性狀，作爲選拔標準，輔助育種選拔工作。以本場試驗茶園之青心烏龍、青心大有、台茶１２號、台茶１３號等品種爲參考材料，第一年計畫於春、夏、秋三季分析鮮葉中之多元酚、氨基酸、咖啡因及可溶分含量，並調查其芽葉農藝性狀，結果概述如后：

⑴芽葉農藝性狀：

①間徑、節間長等性狀在季節間以春季最小，品種間可概分兩群青心大有、台茶 12 號略大於青心烏龍、台茶 13 號；葉厚亦以春季較薄，台茶 13 號最厚。

②葉長、葉寬及葉面積，在季節間以夏季最大，品種間則以青心烏龍最小。

⑴生化成分：

①元酚含量在季節間以夏季最高，品種間差異不大。

②氨基酸含量高低在季節間依序爲春、秋、夏，品種間則以青心烏龍較佳且在各季節間的含量較爲平均，差異不大。

③咖啡因含量在季節間以夏季最高，品種間則以青心烏龍的含量較低。

④可溶分含量高低在季節間依序爲夏、秋、春，品種間的差異不大。

Studies on the Agronomic Characters and Chemical Component of Fresh Tea Leaf to Assist Progeny Selection in Tea Breeding Programs

Taiwan Tea Experiment Station

Summary

This study aimed at forming reference standards. The selection standards were formulated based on the inter-relationships among tasting quality of made tea chemical components of fresh leaves either from tea-cutting or seed-sowing seedlings, and agronomic characters. This experiment was conducted at Taiwan Tea Experimental Station, the first year result for this project has obtained date regarding chemical component contents of fresh tea leaf, including total polyphenol, total amino acids, caffeine and soluble solids. In addition, agronomic characters of fresh tea leaf from four cultivars Chinshin Oolong, Chinshin Dapang, TTES NO.12 and TTES NO.13 have also been recorded, respectively . The experimental results are summarized as follows:

1. Agronomic characters of fresh tea leaf:
   ① nternode diameter and Internode length: Spring tea had the shortest, and Chinshin Dapang, TTES NO.12 slight longer than that of Chinshin Oolong and TTES NO.13. Leaf thickness: Spring tea got the thinnest and TTES NO.13 got the thickest.
   ② Leaf length, leaf width and leaf area: Summer tea got the largest and Chinshin Oolong got the least.
2. Chemical component contents:
   ① otal polyphenol contents: Summer tea got the highest, whereas there were no difference among tested cultivars.
   ② Total amino acid contents followed the order: Spring tea>Autumn tea> Summer tea, and Chinshin Oolong got the better content, but no differ ence among Seasons.
   ③ Caffeine contents: Summer tea got the highest and Chinshin Oolong got the lower.
   ④ Soluble solids contents followed the order: Summer tea>Autumn tea> Spring tea, and no difference among entries.